



State of Utah
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

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February 17, 2000

Mr. Tony Bates
Umetco Minerals Corporation
P.O. Box 506
Dove Creek, Colorado 81324

Re: Reclamation Plan Information and Map, Umetco Minerals Corporation, Wilson-Silverbell Mines, M/037/027, San Juan County, Utah

Dear Mr. Bates:

Enclosed are several documents found in the Division files which describe the reclamation for the Wilson-Silverbell Mines in response to your phone requests on 1/27/00 and 2/8/00. The enclosed documents are:

1. Bond Estimate dated 12/15/83 (3 pages)
2. Order To Show Cause dated 12/21/78 (2 pages)
3. Division Letter of June 14, 1983 to Kent Dahlquist of Union Carbide Corp. (2 pages)
4. Executive Summary dated 11/21/78 (4 pages)
5. Bond Estimate dated 11/21/78 (2 pages)
6. Reclamation Description CIRCA 1977-78
7. Wilson Silverbell Mine Surface Plant Detail Map - Received June 3, 1985

Please contact me if you require additional information from our files.

Sincerely,

Anthony A. Gallegos
Senior Reclamation Specialist

jb
Enclosures: (listed above)
o:\m37-27info.ltr

(1)

FILE
 11/1/037/027
 Wilson-Silverbell

BOND ESTIMATE
 32 Acres
 UNION CARBIDE'S - WILSON-SILVERBELL MINE
 ACT/037/027
 12/15/83

DIVISION OF
 OIL, GAS & MINING

Copy to Pm

A. Removal of office, shop, compressor building, headframe, etc. (dismantle and bury on site)		
D-9 cat w/ripper	1½ wks @ \$4105/wk	\$ 6,200
40-ton Linkbelt HTC 1040	1 wk @ \$3915/wk	3,900
20-yd ³ end dump truck	2 wks @ \$1470/wk	2,900
5-yd ³ 980 D cat loader	2 wks @ \$1995/wk	4,000
Tractor & 25 ton lowboy	60 hrs @ \$55.55/hr	3,300
Labor	1062 hrs @ \$15/hr	15,900
		<u>\$36,200</u>
B. Removal of trash and extraneous debris (bury at toe of dumps)		
20-yd ³ end dump truck	3 days @ \$370/day	1,100
3½-yd ³ 966 cat loader	3 days @ \$630/day	1,900
Labor	72 hrs @ \$15/hr	1,100
		<u>\$ 4,100</u>
C. Foundation elimination, break-up and burial		
D-9 cat w/ripper	3/4 wk @ \$4105/wk	\$ 3,100
Compressor & Jackhammer	32 hrs @ \$56/hr	1,800
Labor	32 hrs @ \$15/hr	500
		<u>\$ 5,400</u>
D. Restocking of unused fuels, oils, etc. (contingency cost)		\$ 500
E. Pond Area: contouring, excavating pond bottom and dumping down mine shaft, 5.0 acres (based on Hecla Mine cost estimate)		
	5 acres @ \$1300/acre	\$ 6,500
F. Contouring dumps, surface plant area, and roads		
Waste dumps - 11 acres @ \$1800/acre		\$19,800
Plant area and roads - 16 acres @ \$85/acre		1,400
(costs based on Hecla Mine estimates)		<u>\$21,200</u>
G. Topsoil placement and grading on dumps (Hecla costs)		
	11 acres @ \$1400/acre	\$15,400
H. Capping of vertical shafts - 14 ea @ \$1200/ea (Hecla costs)		
		\$16,800
I. Stabilization, reseeding of ponds, dumps and plant area		
	all acres - 32 acres @ \$62/acre	\$ 2,000
J. Monitoring, sampling and necessary testing		\$15,000

WILSON-SILVERBELL MINE

	Sub-Total	\$123,100
K. Contingency, 10%		<u>12,300</u>
	Total	\$135,400

- Conditions:
1. Hourly rates are based on weekly rates because equipment would be used on all phases of reclamation.
 2. Dollar amounts are rounded to the nearest hundred.
 3. All buildings, structures, etc., remaining after cessation of mining activities will have no salvage value and will be buried on site.
 4. Acreage costs are based on Hecla Mine detail costs.
 5. We now feel that 32 acres will be sufficient for this permit and that acreage be used for the final submittal.
 6. Monitoring costs are for vegetation and any augmentation that may be required.
 7. The new stabilization and reseeding costs are based on the conditions of the original permit application and do not reflect either fertilization or mulching. If new information indicates the need for significant changes in the final reseeding techniques, changes will be made at a later date.

8. The contingency amount in item K is being calculated at 10% as required, rather than the 15% rate as in previous estimates.

Prepared by: K. G. Dahlquist
B. A. Green

IN THE MATTER OF THE APPROVAL OF)
THE NOTICE OF INTENT AND RECLAMATION)
PLAN SUBMITTED BY UNION CARBIDE CORP.)
WILSON - SILVERBELL MINE,)
SAN JUAN COUNTY, UTAH)

ORDER TO SHOW CAUSE
No. ACT/037/027

THE STATE OF UTAH TO ALL OPERATORS TAKERS OF PRODUCTION,
MINERALS AND ROYALTY OWNERS, AND PARTICULARLY ALL PERSONS INTERESTED IN
TOWNSHIP 32 SOUTH, RANGE 26 EAST, SLBM, SAN JUAN COUNTY, UTAH.

Notice is hereby given that tentative approval was given by
the Utah Division of Oil, Gas, and Mining, on December 21, 1978 to
Union Carbide Corp., P.O. Box 1029, Grand Junction, Colorado 81501 to
commence underground random room and pillar, trackless, double shaft
uranium mining operations on portions of Sections 15, 21, and 26,
Township 32 South, Range 26 East, San Juan County, Utah. The name of
the mine is the Wilson - Silverbell Mine, and the person representing
the company in this matter is Mr. Mel Pembridge, Union Carbide Corp.,
P.O. Box 1029, Grand Junction, Colorado 81501.

Union Carbide Corp. has fulfilled obligations under the Mined Land
Reclamation Act of 1975 (Section 40-8, U.C.A., 1953, as amended), and
will employ the following reclamation techniques on approximately 10
acres of Leases and Leased claims.

During Operations:

- 1) Mining will be conducted in a safe, sound technical and prudent miner-like manner.
- 2) Future site expansion will salvage topsoil in advance of development and it will be stored in stabilized and revegetated stockpiles.
- 3) New access roads will be constructed in a manner agreeable to the surface owners and to allow for proper drainage.
- 4) Revegetation tests will be employed.

After Operations:

- 1) Surface debris, scrap metal, discarded wood, and unuseable buildings will be buried or removed from the site.
- 2) Portals, shafts, and ventilation holes will be sealed to prevent unauthorized or accidental entry.
- 3) Dumps, pads and other disturbed sites will be stabilized by rounding off outer edges, reducing the slope of the rock faces and regrading drainage contours.
- 4) Compacted surfaces will be scarified, seeded with a grass-shrub seed mixture in the fall, and drag covered.
- 5) Water evaporation ponds will be reclaimed.
- 6) The main road through the site will be left open for access.
- 7) Reclaimed areas will be monitored and reseeded if necessary.


Reclamation performance surety will be established upon final approval of the mining and reclamation plan.

Any person or agency aggrieved by this tentative decision is hereby requested to submit written protest within 30 days of December 21, 1978, to the Division of Oil, Gas, and Mining, 1588 West North Temple, Salt Lake City, Utah, setting forth factual reasons for his complaint, and to appear at a time and place heretobe established, appear before the Board of Oil, Gas, and Mining, to show cause, if any there be, why this decision should not be approved.

DATED this 21st day of December, 1978.

STATE OF UTAH

BOARD OF OIL, GAS, AND MINING


SCHEREE WILCOX
Secretary of the Board



(3)

STATE OF UTAH
NATURAL RESOURCES
Oil, Gas & Mining

Scott M. Matheson, Governor
Temple A. Reynolds, Executive Director
Dr. G. A. (Jim) Shirazi, Division Director

4241 State Office Building • Salt Lake City, UT 84114 • 801-533-5771

June 14, 1983

Mr. Kent Dahlquist
Mining Engineer
Union Carbide Corp.
Metals Division
LaSal, Utah 84530

RE: Inspection of the
Wilson-Silverbell Mine
Union Carbide Corp.
ACT/037/027
San Juan County, Utah

Dear Kent:

This letter should serve to memorialize concerns of the Division developed during the inspection of the Wilson-Silverbell Mine on May 25, 1983. As you recall Susan Linner and I were trying to translate the submitted mining and reclamation plan and evaluate changes over the previous five years. In anticipation of your reply to the Division's April 26, 1983 letter certain areas were observed to familiarize ourselves with actual site conditions and potentially alleviate any misunderstandings. Please thank Niels Haubold and staff for aiding our appreciation of mining developments.

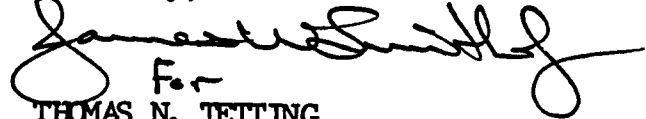
The mining and reclamation plan will still need to be updated with answers to the original questions asked on April 26. However, additional information will be required regarding two areas; topsoil stockpile plans and mine discharge drainage. It was apparent that no topsoil has been salvaged from mine dump-pad construction areas during the entire five year period of Division approved operation. Immediate plans should be developed and included in your update package which specify where and how much topsoil will be salvaged and stored. Upon final reclamation Union Carbide may be required to augment existing sources of resoiling material with quantities equivalent to the lost/buried amount. It was also understood on-site that the meandering discharge which openly crosses some distance prior to impoundment in the evaporation ponds will be channeled into a more direct and controlled design. It should not flow under the existing waste rock/low grade ore piles as it now does and ought to be depicted on the surface facilities map.

Mr. Kent Dahlquist
ACT/037/027
June 14, 1983
Page Two

Other than these areas the operations were apparently being conducted according to submitted plans and are in good shape at this time. Please submit the requested information so that a final determination on the March 30, 1983 amendment may be made as rapidly as possible.

If there are any questions please do not hesitate in calling me.

Sincerely,

A handwritten signature in cursive script, appearing to read "Thomas N. Tetting".

For
THOMAS N. TETTING
ENGINEERING GEOLOGIST

TNT/lm

cc: Sue Linner, DOGM

HC100/1021

(4)

EXECUTIVE SUMMARY

UNION CARBIDE CORPORATION

Wilson-Silverbell Mines

Sections 15, 21, 22, T. 32S., T. 26E.

San Juan County, Utah

ACT/037/027

November 21, 1978

LOCATION:

Union Carbide Corporation is operating an underground random room and pillar uranium mine in Sections 15, 21, and 22, Township 32 South, Range 26 East, San Juan County, Utah. The mine is situated on flat improved rangeland near agricultural land. Consult the enclosed maps for site locations.

The application is for two underground shaft mines that are adjacent to each other. Uranium ore is mined from the Salt Wash sandstone member of the Morrison Formation. Mining activities commenced prior to May of 1975.

SOILS AND GEOLOGY:

Soils are relatively deep and probably have agricultural potential. Unfortunately soils were not stockpiled prior to the commencement of mining. Union Carbide will attempt to revegetate the spoil material without re-spreading soil over the material.

HYDROLOGY:

There are no perennial streams immediately adjacent to the mine site. Infiltration potential of the natural soils of the area is high, resulting in low runoff potential. Impacts to surface hydrology is expected to be minimal.

The mine presently discharges into series of evaporation ponds. The ponds will be reclaimed upon termination of operations. Mine discharge will cease.

ECOLOGY:

Pinyon Pine and Juniper comprise the overstory and tends to be patchy in the area. The natural understory is comprised of the sagebrush-native grass community. The area is used for wheat and bean farming.

The area has limited value for wildlife habitat.

STRUCTURES AND FACILITIES:

Structures and facilities that presently exist include the following:

- a. A through access road maintained by San Juan County.

EXECUTIVE SUMMARY
Union Carbide Corp.
Wilson-Silverbell Mines
Page Two

- b. Two vertical shafts.
- c. Three vent shafts.
- d. Two waste dumps.
- e. Shop and office facilities.
- f. Five evaporation ponds for mine discharge.
- g. Power transmission facilities.
- h. Access roads to vent shafts and ponds.

Possible future facilities include two additional vent shafts.

MINING AND RECLAMATION:

Union Carbide has committed to the following:

During Operations:

- a. Mining will be conducted in a safe, sound technical and prudent miner-like manner.
- b. Future site expansion will salvage topsoil in advance of development and it will be stored in stabilized and revegetated stockpiles.
- c. New access roads will be constructed in a manner agreeable to the surface owners and to allow for proper drainage.

After Operations:

- a. Surface debris, scrap metal, discarded wood, and unusable buildings will be buried or removed from the site.
- b. Portals, shafts, and ventilation holes will be sealed to prevent unauthorized or accidental entry.
- c. Dumps, pads and other disturbed sites will be stabilized by rounding off outer edges, reducing the slope of the rock faces and regrading drainage contours.

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Union Carbide Corp.
Wilson-Silverbell Mines
Page Three

- d. Compacted surfaces will be scarified, seeded with a grass-shrub seed mixture in the fall, and drag covered.
- e. Water evaporation ponds will be reclaimed.
- f. The main road through the site will be left open for access.
- g. Reclaimed areas will be monitored and reseeded if necessary.

IMPACTS:

The mine facilities were inexistence prior to the Utah Mined Land Reclamation Act. The Reclamation Plan will eliminate safety hazards and reduce visual and environmental impacts.

SURETY ESTIMATE:

Surety for this operation was estimated to be \$28,332.37 which includes 5% inflation for a period of 14 years, the expected life of the mine. The surety includes the following work:

- a. Sealing of two vertical shafts and five ventilation shafts.
- b. Removal of structures and equipment.
- c. Removal of trash and debris.
- d. Regrading of spoil piles.
- e. Scarification and seeding of disturbed areas.
- f. Grading of drainage contours and water bars.
- g. Supervising labor.
- h. Removal of hazardous substances.
- i. Reseeding and monitoring if necessary.
- j. 5% inflation.

A copy of the reclamation surety estimate is enclosed.

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DIVISION OF OIL, GAS, AND MINING
BOND ESTIMATE

OPERATOR: Union Carbide Corp.
MINE NAME: Wilson - Silverbell Mine ACT/037/027
LOCATION: Sec.'s 15, 21, and 22, T.32S., R.26E.
COUNTY: San Juan, Utah
DATE: November 21, 1978

	Operation	Amount	Rate	Cost
A.	CLEAN-UP			
	1. Removal of structures & equipment.	Lump sum	\$ 2,000.00	\$ 2,000.00
	2. Removal of trash & debris.	Lump sum	\$ 1,000.00	\$ 1,000.00
	3. Leveling of ancillary facilities pads and access roads.	- - - - -	- - - - -	- - - - -
B.	REGRAIDING & RECONTOURING			
	1. Earthwork including haulage and grading of spoils, waste and overburden.	32 hours cat time	\$ 85.00/hr.	\$ 2,700.00
	2. Recontouring of highwalls and excavations.	- - - - -	- - - - -	- - - - -
	3. Spreading of soil or surficial materials.	- - - - -	- - - - -	- - - - -
C.	STABILIZATION			
	1. Soil preparation, scarification, fertilization, etc.	10 acres	\$ 25.00/ac.	\$ 250.00
	2. Seeding or planting.	10 acres	\$ 150.00/ac.	\$ 1,500.00
	3. Construction of terraces, waterbars, etc.	4 hours cat time	\$ 85.00/hr.	\$ 340.00
D.	LABOR			
	1. Supervision.	32 hours	\$ 10.00/hr.	\$ 320.00
	2. Labor exclusive of bulldozer time.			
E.	SAFETY			
	1. Erection of fences, portal coverings, etc.	2 Vertical Shafts	\$1,000.00/ea	\$ 2,000.00
		5 Vent Shafts	\$ 500.00/ea	\$ 2,500.00
	2. Removal or neutralization of explosive or hazardous materials.	Lump sum	\$ 200.00	\$ 200.00
F.	MONITORING			
	1. Continuing or periodic monitoring, sampling & testing deemed necessary.	Reseeding 10 acres	\$ 150.00/ac	\$ 1,500.00
G.	OTHER			
	1. 5% inflation for 14 years	CAF = 1.9799	Subtotal	\$14,310.00
				\$14,022.37
			Total	\$28,332.37

Pond Estimate

Union Carbide

Wilson - Silverbell

11/21/78

KMT

2 shafts

3 vent shafts (5?)

2 mines - double Lump Sum

Ponds	SB	{	200 x 200	240,000
			200 x 100	20,000
			225 x 175	39,375
	WIL.	{	250 x 200	50,000
			300 x 150	45,000
<hr/>				
				194,375 = 4.46 ac.

4.46
3.29
1.03
0.64

9.92 ac \approx 10 ac.

Pads - regrade

SB 550 x 300 = 165,000 ft² = 3.79 ac.

W. 300 x 150 = 45,000 ft² = 1.03 ac.

rd - 2800 ft excluding through rd.
assume 10 ft width, 28,000 ft² = 0.64 ac

Power Line

\$1,000 Lump Sum / mile

Buildings - 8 - Assume sell Bldgs.
for salvage

removal of Junk

15 yr. mine life as of 77

During operations:

1. Mining conducted in a safe, sound technical and prudent manner mine-like manner
2. future site expansion will salvage topsoil in advance of development and store in stabilized & reveg. stockpiles
3. New access roads will be constructed in a manner agreeable to the surface owners and to allow proper drainage.
4. Revegetation tests will be employed

After operations

6. Reclaim water evap. ponds (5)
5. Seed with grass-shrub mix in the fall
1. Surface debris, scrap metal, discarded wood and unusable bldgs. will be buried or removed from the site
2. Mine portals, shafts and ventilation holes will be sealed to prevent accidental or unauthorized entry.
3. Dumps, onpads and other disturbed sites will be stabilized by rounding outer edges, reducing the slope of the rock faces and regrading drainage cuts.
4. Compacted surfaces will be scarified, seeded and drag covered.
7. The main rd. through the site will be left open to provide access.
8. Monitor & reseed if necessary

Lease to ~~the~~
Lease to ~~the~~

(6).

Approx Year is 77-78

M/037/027

RECLAMATION

Upon final abandonment of the mine, surface debris, scrap metal, discarded wood and unusable buildings will be buried or removed from the site. Mine portals, shafts and ventilation holes will be sealed to prevent accidental or unauthorized entry.

Dumps, or pads and other disturbed sites will be stabilized. Stabilization will consist of rounding off the outer edges of the dumps and pads, reducing the slope of waste rock faces and regrading of drainage contours on the disturbed surfaces. The compacted surface will be scarified, seeded as recommended and then drag covered. The seeding will be done in the fall. At present there are no plans for the addition of a fertilizer. However should revegetation tests prove soil amendments significantly helpful in establishing vegetation, then, amendments and other proven surface techniques will be employed.

The main road through the site will be left open to provide access to other areas.